Chapter 25.03

LINCOLN HEATING, VENTILATING AND COOLING CODE

Sections

25.03.010	Adoption of the Uniform Mechanical Code.			
25.03.020	Section 101 Amended; Citation of Code.			
25.03.030	Section 1017 Amended; Building Official Defined.			
25.03.040	Section 110 Amended; Heating, Ventilating, and Cooling			
	Advisory and Appeals Board Created.			
25.03.050	Section 111 Amended; Violations and Penalties.			
25.03.060	Section 112 Amended; Permits.			
25.03.070	Section 113.2 Amended; Application for Permit; Plans			
	and Specifications.			
25.03.080	Section 114.4.1 Amended; Permit Issuance; Expiration.			
25.03.090	Section 115 Amended; Permit Fees.			
25.03.100	Section 116.1 Amended; Inspections; General.			
25.03.110	Section 116.2 Amended; Inspections; Operation of Heating Equipment.			
25.03.120	Section 116.4 Amended; Inspections; Request for Inspection.			
25.03.130	Board of Heating, Ventilating, and Cooling Examiners.			
25.03.140	Registration of Master HVAC Contractors and HVAC Technicians.			
25.03.150	Registration of Master HVAC Contractors and Technicians; Application.			
25.03.160	Registration of Master HVAC Contractors and Technicians; Examination.			
25.03.170	Registration of Corporation, Firm or Partnership.			
25.03.180	Heating Contractors Registered at the Time of Adoption of			
	This Code Automatically Registered Hereunder.			
25.03.190	Examination and Registration Fee.			
25.03.195	Continuing Education Requirements.			
25.03.200	Certificate of Insurance.			
25.03.210	Lapsed Registration Certificate.			
25.03.220	Suspension or Revocation of Certificate of Registration.			
25.03.230	Registered Master HVAC Contractor Not to Allow Another Person to			
	Work On His or Her Permit.			
25.03.240	Registered Master HVAC Contractor; Death.			
25.03.250	Installation, Alteration, Reconstruction, or Repair to be Performed			
	by Master HVAC Contractor Only, Except as Otherwise Provided.			
25.03.260	Installation by Owner.			
25.03.270	Section 303.1.1 Amended; Prohibited Installations.			
25.03.280	Section 303.2; Conflicts; Deleted.			
25.03.290	Section 304.5 Amended; Prohibited Locations.			
25.03.300	Section 306; Electrical Connections; Deleted.			
25.03.310	Section 309.5 Added; Overflows.			

25.03.320	Section 402.4 Amended; Make-up Air.		
25.03.330	Section 504.1 Amended; Environmental Air Ducts; Makeup and		
	Exhaust Air Ducts.		
25.03.335	Section 504.2.1 Added; Residential Kitchen Exhaust.		
25.03.340	Section 504.3.1 Amended; Environmental Air Ducts; Domestic Dryer Vent;		
	Moisture Exhaust Ducts.		
25.03.350	Section 504.3.2 Amended; Environmental Air Ducts; Limitations.		
25.03.360	Section 505.8 Deleted; Small Hobby Kiln Exhaust Systems.		
25.03.365	Section 507.5 Amended; Cleanouts and Other Openings.		
25.03.367	Section 507.8 Amended; Air Velocity.		
25.03.370	Section 508.1 Amended; Commercial Kitchen Hoods; Where Hoods		
	Are Required.		
25.03.380	Section 508.2.1 Amended; Type I Hoods.		
25.03.390	Table No. 5-E Added; Kitchen and Bath Exhaust Fans; Duct Limitations.		
25.03.400	Section 601.1 Amended; Ducts Systems; Scope; Material.		
25.03.410	Section 601.6 Amended; Joints, Seams and Fittings.		
25.03.420	Section 603.1.4 Added; Plenum and Duct Clearance.		
25.03.430	Section 701 Amended; Combustion Air; General; Air Supply.		
25.03.450	Section 704.2; Combustion Air Ducts; Dampers.		
25.03.460	Section 809 Amended; Multiple Appliance Venting Systems.		
25.03.470	Section 816.8 Amended; Two or More Appliances Connected to a Single		
	Vent.		
25.03.480	Section 908; Clothes Dryers; Not Applicable.		
25.03.490	Section 910; Small Ceramic Kilns; Deleted.		
25.03.500	Chapter 17 Added; Decorative Gas Fireplace; Gas Log Installations and		
	Contractors.		
25.03.510	Section 1701 Added; General Provisions.		
25.03.520	Section 1701.1 Added; Definitions.		
25.03.530	Section 1702 Added; Permits and Fees.		
25.03.540	Section 1703 Added; Installation and Inspection.		
25.03.550	Section 1704 Added; Decorative Fireplace/Gas Log Board of Examiners.		
25.03.560	Section 1705 Added; Registration of Decorative Fireplace/Gas Log		
	Contractors and Installers.		
25.03.570	Section 1706 Added; Examination and Registration Fees.		
25.03.580	Section 1707 Added; Certificate of Insurance.		
25.03.590	Section 1708 Added; Suspension or Revocation of Registration.		
25.03.600	Chapters 10, 11, 12, 13, 14, 15, and 16, Appendix A, Appendix B,		
	Appendix C, and Appendix D Adopted as Reference Guide Only.		
	· · · · · · · · · · · · · · · · ·		

25.03.010 Adoption of the Uniform Mechanical Code.

Except as hereinafter provided by specific amendment the 1997 edition of the Uniform Mechanical Code, published by the International Conference of Building Officials and the International Association of Plumbing and Mechanical Officials, is hereby adopted; and the 1988 edition of the ANSI-Z223.1 (NFPA54) as published by the National Fire Protection Association and the National Standards Institute is adopted as a reference guide only to the installation of equipment covered by this code and is not intended to modify any specific provisions of the 1997 edition of the Uniform Mechanical Code; and, in the event that any conflicts arise between the two documents hereinabove identified, the Uniform Mechanical Code shall govern. The A.G.A. (American Gas Association) 75-07-183 issued July 1991 shall replace Appendix C of this code and shall be used as an appliance venting guide. One printed copy of each publication described above has been filed in the office of the City Clerk for the use and examination by the public. (Ord. 17440 §1; November 23, 1998).

25.03.020 Section 101 Amended; Citation of Code.

Section 101 of the Uniform Mechanical Code is amended to read as follows:

Section 101. This ordinance shall be known as the "Lincoln heating, ventilating, and cooling code," and may be cited as such or be referred to as "this code." (Ord. 17440 §2; November 23, 1998).

25.03.030 Section 108.1 Amended; Building Official Defined.

Section 108.1 of the Uniform Mechanical Code is amended to read as follows:

108.1. The Director of Building and Safety is hereinafter designated as the "Building Official." The Building Official or an authorized representative of the Building Official is hereby authorized and directed to enforce all of the provisions of this code. (Ord. 17440 §3; November 23, 1998).

25.03.040 Section 110 Amended; Heating, Ventilating, and Cooling Advisory and Appeals Board Created.

Section 110 of the Uniform Mechanical Code is amended to read as follows:

Section 110. In order to advise the Mayor regarding the determination of the suitability of alternate materials and types of installation and the reasonable interpretations of the provisions of this code, there shall be and is hereby created a Lincoln Heating, Ventilating, and Cooling Advisory and Appeals Board, consisting of the members of the Board of Examiners created by Section 25.03.130 and two additional members appointed by the Mayor to serve at the Mayor's pleasure and who are qualified by experience and training to pass upon matters pertaining to heating, ventilating, and cooling installation. The Building Official shall be an ex officio member and shall act as secretary of the board.

Any person who is aggrieved by a decision, notice, or order of the Building Official under this code may appeal such decision to the Mayor by filing an appeal in the office of the Building Official within thirty days from the date of such decision. Upon request, the Building Official shall furnish such aggrieved person with an appeal form, which, upon completion and filing within the prescribed time, shall be sufficient for the purpose of commencing an appeal proceeding hereunder. Except where necessary to eliminate an immediate hazard to life or property under Section 108.5 enforcement of any decision, notice, or order of the Building Official issued under this code shall be stayed during the pendency of an appeal therefrom which is properly and timely filed.

Upon the filing of an appeal, the aggrieved party shall pay the Building Official as follows:

- (a) A fifty dollar fee for review of a decision of the Building Official interpreting a provision or provisions of this code; matters pertaining to heating, ventilating, and cooling installations.
- (b) A fifty dollar fee for review of a decision of the Building Official concerning the suitability of alternate materials or types of installation.

All properly and timely filed appeals shall be referred to the Heating, Ventilating, and Cooling Advisory and Appeals Board for hearing. The secretary of such board shall in each appeal notify the appellant in writing of the date, time, and place of hearing before the board, which date shall be no later than thirty days from the date of filing of the appeal. The board shall adopt reasonable rules and regulations for conducting its appeals and shall render in writing to the Mayor its findings and recommendations within seven days from the date of hearing with a copy to the Building Official. The Mayor shall then render a written decision to the appellant concerning the Mayor's findings and conclusions. Decisions of the Mayor may be appealed as provided by law. (Ord. 17440 §4; November 23, 1998).

25.03.050 Section 111 Amended; Violations and Penalties.

Section 111 of the Uniform Mechanical Code is amended to read as follows:

111.1 General. It shall be unlawful for any person, firm, or corporation to erect, install, alter, repair, relocate, add to, replace, use or maintain heating, ventilating, cooling, or refrigeration equipment in the jurisdiction, or cause or permit the same to be done, contrary to or in violation of any of the provisions of this code. Maintenance of equipment which was unlawful at the time it was installed and which will be unlawful under this code if installed after the effective date of this code shall constitute a continuing violation of this code.

111.2 Penalties. Any person, firm, or corporation violating any of the provisions of this code shall be guilty of a misdemeanor, and each such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this code is committed, continued, or permitted, and upon conviction of any such violation, such person shall be punishable by a fine not to exceed \$500.00, or by imprisonment for not more than six months, or by both such fine and imprisonment, except that each person so convicted shall be fined in a sum of not less than \$200.00 for the first offense, not less than \$250.00 for the second offense, and not less than \$300.00 for the third offense and each offense thereafter. (Ord. 17440 §5; November 23, 1998).

25.03.060 Section 112 Amended; Permits.

Section 112 of the Uniform Mechanical Code is amended to read as follows:

112.1 Permits Required. It shall be unlawful for any person other than a registered master HVAC contractor, journeyman HVAC technician, apprentice HVAC technician, or home owner, under certain conditions as defined in Section 25.03.240 herein, to make any installation, alteration, repair, replacement, or remodel of any heating, ventilating, cooling, or refrigeration system or equipment regulated in this code. It shall be unlawful for any registered master HVAC contractor, journeyman HVAC technician, apprentice HVAC technician, or home owner, under certain conditions as defined in Section 25.03.240 herein, to make any installation, alteration, repair, replacement, or remodel of any heating, ventilating, cooling, or refrigeration system or equipment regulated in this code except as permitted in subsection 112.2 of this section or cause the same to be done without first obtaining a separate mechanical permit for each separate building or structure.

Official's electronic permit application form. The Building Official shall establish and maintain written procedures and requirements for issuing the Master HVAC contractor a unique personal identification number to be used in combination with an authenticated personal computer under the exclusive control of the Master HVAC contractor. The written procedures shall list the acceptable verification or authentication services, payment and use of which shall be the sole responsibility of the Master HVAC contractor. If a permit is applied for electronically, the applicant shall affix a signature by use of a digital or electronic signature that complies with the requirements of state law. The use of a digital or electronic signature shall have the same force and effect as the use of a manual signature and the Master HVAC contractor shall be responsible for all aspects of the proper use or misuse of either the electronic signature or the unique personal identification number.

112.2 Exempt Work. A mechanical permit shall not be required for the following:

- 1. Any portable heating appliance, portable ventilating equipment, portable cooling unit, or portable evaporative cooler.
- 2. Any closed system of steam, hot, or chilled water piping within any heating or cooling equipment regulated by this code;
- 3. Replacement of any component, part, or assembly of an appliance which does not alter its original approval and which complies with the applicable requirements of this code;
- 4. Any refrigeration equipment which is a part of the equipment for which a permit has been issued pursuant to the requirements of this code;
 - 5. Any unit refrigeration system;
 - 6. Replacement of a connector vent.
- 112.3 Exemption from the permit requirements of this code shall not be deemed to grant authorization for work to be done in violation of the provisions of this code or other laws or ordinances of this jurisdiction. (Ord. 18240 §1; September 15, 2003: prior Ord. 17440 §6; November 23, 1998).

25.03.070 Section 113.2 Amended; Application for Permit; Plans and Specifications.

Section 113.2 of the Uniform Mechanical Code is amended to read as follows:

113.2 Plans and Specifications. When required by the Building Official for the enforcement of any provisions of this code, plans and specifications for the installation of heating systems, cooling systems, absorption systems, ventilation systems and hoods shall be designed and prepared by an engineer or architect licensed by the state to practice as such and shall be filed with the Building Official and approved before the issuance of any permit. A sealed plan is required when the building has an occupancy load of twenty persons, is 5,000 feet in floor space, or has a wall thirty-five feet in height. One set of plans and specifications may be filed for checking, provided that not less than three sets of corrected plans and specifications are filed before approval is given by the Building Official. After approval, two sets of plans shall be returned to the applicant, and the other set shall be retained by the Building Official.

When the plans and specifications do not comply with the provisions of this code, the necessary changes or revisions shall be made thereto.

Every plan shall be a print or other type of plan approved by the Building Official. The information contained on the plans shall be clearly legible and specifically indicated. No plan shall be a scale smaller than one-eighth inch per foot.

Specifications, legibly and definitely stated, shall be included either on the plan or on separate sheets.

The approval of any plans or specifications shall not be construed to sanction any violation of this code.

No person shall deviate materially from any approved plans or specifications or fail, neglect, or refuse to comply therewith, unless permission to do so has been obtained from the Building Official and subject to architect or engineer approval, where applicable.

Every dwelling unit shall be provided with heating facilities capable of maintaining a room temperature of 70° F. at a point between three and five feet above the floor level, under local outdoor winter design conditions as specified in ASHRAE Handbook.

The above temperature shall be measured in the approximate center of all habitable rooms, on the story that the thermostat is located.

With central forced air systems, the furnace blower shall be in constant operation for a minimum of two hours preceding temperature readings.

Where air conditioning is provided, the cooling system shall be capable of maintaining a temperature of 78° F. as measured in a manner the same as for heating.

The plans or specifications shall show the following:

- (a) Layout for each floor withdimensions of all working spaces and a legend of all symbols used;
- (b) Location, size, and material of all piping;
- (c) Location, size, and materials of all air ducts, air inlets, and air outlets;
- (d) Location of all fans, furnaces, boilers, absorption units, refrigerant compressors and condensers, and the weight of all pieces of such equipment weighing 200 pounds or more.
- (e) Rated capacity or horsepower of all furnaces, heat exchanges, blower fans, refrigerant compressors, and absorption units;
 - (f) Location, size, and material of all combustion product vents and chimneys;
 - (g) Location and area of all ventilation and combustion air openings and ducts;
 - (h) Location of all air dampers and fire shutters;
- (i) First sheet of each set of plans and specifications shall show the address of the proposed work and the name and address of the owner or lessee of the premises;
- (j) Plans and specifications shall be of sufficient clarity to show that the proposed installation will conform to the provisions of this code and of all applicable laws, ordinances, rules, regulations, and orders. (Ord. 17440 §7; November 23, 1998).

25.03.080 Section 114.4.1 Amended; Permit Issuance; Expiration.

Section 114.4.1 of the Uniform Mechanical Code is amended to read as follows:

114.4.1 Expiration. Every permit issued by the Building Official shall under these provisions expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 120 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work has commenced for a period of 180 days. Before such work can be recommenced, a new permit shall be first obtained so to do, and the fee thereof shall be one-half the amount required for a new permit for such work; provided, no changes have been made or will be made in the original plans and specifications for such work; and, provided further, that such suspension or abandonment has not exceeded one year.

There shall be no refunds or credits given on permits which have expired. Permit holders returning an unused permit prior to the expiration date of the permit shall be limited to a maximum refund amounting to two-thirds of the original fee if the original fee is \$75.00 or less. For permits where the original fee was greater than \$75.00, a \$25.00 processing fee will be levied and the remaining fee amount will be refunded to the permit holder. (Ord. 18240 §2; September 15, 2003: prior Ord. 17440 §8; November 23, 1998).

25.03.090 Section 115 Amended; Permit Fees.

Section 115 of the Uniform Mechanical Code is amended to read as follows:

Section 115. Any person desiring a permit required by this code shall, at the time of filing an application therefor, pay a fee to the Building Official as set forth below.

Where work for which a permit is required by this code is started or proceeded with prior to obtaining said permit, the fees hereinafter specified shall be doubled; but the payment of such double fees shall not relieve any person or persons from fully complying with the requirements of this code in the execution of the work or any other penalties prescribed herein.

HEATING, VENTILATING, & COOLING SYSTEMS PERMIT FEE SCHEDULE

Minimum Permit Fee
Installation or replacement of any type of heating equipment:
Per unit
Installation or replacement of any type of cooling equipment:
Per unit
Installation or replacement of any type of heat pump.
(Fee for furnace or air handler is separate, if installed)
Per unit
Installation or replacement of any type of solar equipment
interconnected with heating or cooling equipment per
unit (does not include back-up heating or cooling
equipment)
** Installation of air handling volume or mixing boxes (each)
Installation of exhaust systems, per Chapter 5, (each)
Installation of clothes dryer vent (each)
For each ventilation fan connected to a single duct
Air-handling units not in conjunction with any of the above and
with or without steam, water, or DX coils:
Per unit (commercial or residential)
Installation of vent or chimney liner not in conjunction with
the installation of any of the above
Alteration of existing vent or duct work
Installation of circulating heaters
Installation or replacement of conversion burners
Installation or replacement of any unit heater or infrared pipe heating system

Installation of a ventilation system which is not a portion of		
any heating or cooling system authorized by permit:		
Per unit		
Installation of gas or decorative fireplace		
Installation of hood with or without mechanical exhaust		
including the ducts for such hood (per hood)		
Underground duct work (per system)		
Reinspection fee (wrong address, equipment that does not pass		
inspection, incomplete work, equipment inaccessibility, etc.)		
115.1 General. Deleted.		
115.2 Permit Fees. Deleted.		
115.3 Plan Review Fees. Deleted.		
115.3.1 Separate fees for plan review. Deleted.		
115.3.2 Incomplete or Changed Plans. Deleted.		
115.4 Expiration of Plan Review. Deleted.		
115.5 Investigation Fees: Work Without a Permit. Deleted.		
115.6 Fee Refunds. Deleted		
115.6.1 Building permit fee refund. Deleted.		
115.6.2 Plan review fee refund. Deleted.		
115.6.3 Refund application. Deleted.		
(Ord. 18240 §3; September 15, 2003: prior Ord. 17440 §9; November 23, 1998).		

25.03.100 Section 116.1 Amended; Inspections; General.

Section 116.1 of the Uniform Mechanical Code is amended to read as follows:

116.1 General. All equipment for which a permit is obtained under this code shall be inspected by the Building Official.

No portion of any equipment intended to be concealed by any permanent portion of the building shall be concealed until inspected and approved.

When the installation of any equipment is completed, the second or final inspection shall be made. The registered master HVAC contractor shall be required to promptly call for final inspection upon completion of the work. Failure to do so shall be grounds for withholding further permits until any backlog of final inspections is completed.

A final inspection approval may, upon notice, be revoked by the Building Official if the Building Official finds that the heating, ventilating, cooling, or refrigeration equipment fails to comply in any respect with the requirements of this code, or that any installation is unsafe, dangerous, or a hazard to life or property. A time limit of seven days shall be allowed for the correction of rejected installation. Corrections not made and approved by the Building Official in the allotted time shall be grounds for withholding further permits until corrections are made and approved by the Building Official. (Ord. 17440 §10; November 23, 1998).

25.03.110 Section 116.2 Amended; Inspections; Operation of Heating Equipment.

Section 116.2 of the Uniform Mechanical Code is amended to read as follows:

116.2 Operation of heating equipment. This section shall not be considered to prohibit the operation of any heating equipment installed to replace existing heating equipment serving an occupied portion of a building, in the event a request for inspection of such heating equipment has been filed with the department not more than forty-eight hours after such replacement work is completed, and before any portion of such equipment is concealed by any permanent portion of the building. (Ord. 17440 §11; November 23, 1998).

25.03.120 Section 116.4 Amended; Inspections; Request for Inspection.

Section 116.4 of the Uniform Mechanical Code is amended to read as follows:

116.4 Request for Inspection. The Building Official may require that every request for inspection be filed at least one day before such inspection is desired. Such request may be in writing or by telephone at the option of the Building Official.

It shall be the duty of the person requesting inspection of any equipment regulated by this code to provide access and means for proper inspection of such equipment. It shall also be the duty of the person requesting final inspection to determine that the equipment is operational with permanent gas and/or electrical connections before requesting such final inspection. (Ord. 17440 §12; November 23, 1998).

25.03.130 Board of Heating, Ventilating, and Cooling Examiners.

There is hereby created a Board of Heating, Ventilating, and Cooling Examiners which shall consist of five members and shall be referred to herein as the Board of Examiners. Members of the Board of Examiners shall consist of the Building Official, a registered professional mechanical engineer, the chief heating inspector, and two registered heating, ventilating, and cooling contractors. Said heating contractors and professional mechanical engineer shall be appointed by the Mayor with the concurrence of the City Council for staggered terms of three years each. The heating inspector shall be the permanent secretary of the board of examiners and shall keep a record of all meetings.

The Board of Examiners shall have power and authority to adopt such rules and regulations as are consistent with the provisions of this code, subject to approval of the Mayor, for the examination of applicants for registration under the terms of this code. All decisions of the Board of Examiners shall be subject to review by the Mayor upon written request of the aggrieved party to the Mayor. The Board of Examiners shall determine minimum qualifications for applicants for registration and as part of the rules and regulations shall determine the nature of the examination to be given applicants for registration and shall elect annually a chairperson who shall preside at all meetings.

Regular meetings of the Board of Examiners shall be held in January of each year. Special meetings may be held when deemed necessary at the call of the chairperson. (Ord. 17440 §13; November 23, 1998).

25.03.140 Registration of Master HVAC Contractors and HVAC Technicians.

There shall be three classes of registration as follows:

(a) Master HVAC contractor is hereby defined to be any person skilled in the planning, superintending, and material installation of heating, ventilating, and cooling equipment and their accessories and who is familiar with the ordinances and regulations governing the same, and who is competent to install,

repair, alter, or remove HVAC equipment or gas piping with the full responsibility of supervision, whether doing such work by himself or employing journeyman HVAC technicians and apprentice HVAC technicians to assist him.

Inactive Master HVAC contractor is hereby defined to be any person meeting the qualifications of a Master HVAC contractor but will not be active as an HVAC contractor and will not be issued HVAC permits.

- (b) Journeyman HVAC technician is hereby defined to be any person employed by a master HVAC contractor, other than an apprentice HVAC technician, who as his principal occupation is engaged in the practical installation, alteration, repair, or removal of heating, ventilating, and cooling equipment. A journeyman may supervise a maximum of five apprentices on a job site.
- (c) Apprentice HVAC technician is hereby defined to be any person, other than a master HVAC contractor or journeyman HVAC technician, who as his principal occupation is engaged in learning and assisting in the installation, repair, alteration, or removal of heating, ventilating and cooling equipment and their accessories as an employee under the supervision of a master HVAC contractor or journeyman HVAC technician.

No person shall engage in or hold himself out as engaging in the heating, ventilating and cooling business in the city or within three miles thereof or install any heating, ventilating and cooling systems or their accessories except as provided for in Section 25.03.060 unless duly authorized to do so by registration. (Ord. 18240 §4; September 15, 2003: prior Ord. 17440 §14; November 23, 1998).

25.03.150 Registration of Master HVAC Contractors and Technicians; Application.

Application for registration as a master HVAC contractor, journeyman HVAC technician, or apprentice HVAC technician, shall be made in writing to the Building Official on a form furnished by the Building Official for such purpose. Such form shall require the name and address of the applicant, the business location of the applicant, a statement of the practical experience of the applicant, and such other relevant information as may be required by the Building Official. (Ord. 17440 §15; November 23, 1998).

25.03.160 Registration of Master HVAC Contractors and Technicians; Examination.

Before any applicant shall be registered as a master HVAC contractor or journeyman HVAC technician, he shall pay an examination fee and shall be required to submit to and pass a written examination to determine his qualifications and fitness for executing the class of work under this Code and the Lincoln Gas Piping Systems Code covered by the registration for which application is made. Such examination shall normally be given the third Wednesday in January, April, July, and October under the direction of the Board of Examiners. The examination date may be changed by majority approval of the Board of Examiners and notification of the master HVAC contractors. Any applicant who fails to pass the required examination shall not be eligible to take another examination until at least six months shall have elapsed from the date of last examination. (Ord. 17440 §16; November 23, 1998).

25.03.170 Registration of Corporation, Firm or Partnership.

Any corporation may be registered as a master HVAC contractor in the name of such corporation, provided such corporation shall have a registered master HVAC contractor as a bona fide officer or employee of such corporation who shall at all times be on duty and be in actual charge of heating, ventilating, and cooling work done by such corporation. The registration certificate shall also be issued in the name

of the person registered as a master HVAC contractor. In the event such master HVAC contractor shall sever his or her relationship with such corporation as a bona fide officer or employee, such registered master HVAC contractor must immediately notify the Building Official and the Board of Examiners, who shall forthwith recommend to the Mayor that the certificate of registration of such corporation be revoked. It shall be unlawful for any corporation to act, engage in, advertise, or to otherwise represent itself as a master HVAC contractor in the City of Lincoln unless a bona fide officer or employee of such corporation is duly registered as a master HVAC contractor as provided in this code.

Any firm or partnership may be registered as a master HVAC contractor in the name of such firm or partnership, provided such firm or partnership shall have a registered master HVAC contractor as a bona fide member or employee of such firm or partnership and who shall at all times be on duty and be in actual charge of the heating, ventilating, and cooling work done by such firm or partnership. The registration certificate shall also be issued in the name of the person registered as a mater HVAC contractor. In the event such master HVAC contractor shall sever his or her relationship with such firm or partnership as a bona fide member or employee, such registered master HVAC contractor must immediately notify the Building Official and Board of Examiners, who shall forthwith recommend to the Mayor that the certificate of registration of such firm or partnership be revoked. It shall be unlawful for any firm or partnership to act, engage in, advertise, or to otherwise represent itself as a master HVAC contractor in the City of Lincoln unless a bona fide member or employee of such firm or partnership is duly registered as a master HVAC contractor as provided in this code.

No corporation, firm, or partnership shall be registered as a master HVAC contractor until the corporation, firm, or partnership has a registered master HVAC contractor as a bona fide officer, member, or employee of such corporation, firm, or partnership who shall at all times be on duty and be in actual charge of heating, ventilating, and cooling work being done by such corporation, firm, or partnership. (Ord. 18240 §4.5; September 15, 2003: prior 17440 §17; November 23, 1998).

25.03.180 Heating Contractors Registered at the Time of Adoption of This Code Automatically Registered Hereunder.

All heating contractors duly registered by the City of Lincoln at the time of the adoption of this code shall be automatically registered as a master HVAC contractor under the provisions of this code without submitting to an examination. (Ord. 17440 §18; November 23, 1998).

25.03.190 Examination and Registration Fee.

Each applicant for a master HVAC contractor registration or journeyman HVAC technician registration shall pay to the Building Official an examination fee as follows:

Master HVAC contractor examination fee	. \$150.00
Journeyman HVAC technician examination fee	\$100.00

Upon the initial issuance or subsequent renewal of a registration certificate, a registration fee shall be paid annually to the Building Official as follows:

Master HVAC contractor registration fee	. \$250.00
Inactive Master HVAC contractor registration fee	\$50.00
Journeyman HVAC technician registration fee	\$25.00
Apprentice HVAC technician registration fee	\$15.00

Any person dealing in heating, ventilating or cooling equipment or supplies, but not engaged in the installation, alteration, repair, or removal of equipment or supplies shall not be required to register hereunder. (Ord. 18240 §5; September 15, 2003: prior Ord. 17621 §1; February 28, 2000: Ord. 17440 §19; November 23, 1998).

25.03.195 Continuing Education Requirements.

All registered master HVAC contractors shall submit proof of eight hours of continuing education. Credit for continuing education may include attending educational meetings with organizations such as ASHRAE, RSES, ACCA, Lincoln Heating and Cooling Contractors Association, or Manufacturers Seminar presentations. These continuing education credits shall be submitted to the Building Official each calendar year before the registration certificate expires (December 31). (Ord. 18240 §6; September 15, 2003).

25.03.200 Certificate of Insurance.

Before any master HVAC contractor as defined by the provisions of this code may be issued a permit, such contractor shall be required to:

- (a) At all times maintain public liability insurance coverage for all claims arising out of all work in the City of Lincoln and within three miles of the corporate limits thereof done by or under the supervision of the contractor under the provisions of this code. Such insurance shall be in the form of a commercial or comprehensive general liability policy, or an acceptable substitute policy form as permitted by the City Attorney, with a minimum combined single limit of \$500,000.00 aggregate for any one occurrence on any job for which a permit is required under this code, provided the City of Lincoln shall be named an additional insured thereunder. The coverage required herein shall be subject to review and approval by the City Attorney for conformance with the provisions of this section.
- (b) At all times keep on file with the Building Official a current certificate of insurance signed by a qualified agent of an insurance company licensed to do business in the State of Nebraska and approved by the City Attorney for conformance with the provisions of this section evidencing the existence of valid and effective policies of insurance naming the city as an additional insured for the coverage required by subsection (a) of this section, the limits of each policy, the policy number, the name of the insurer, the effective date and expiration date of each policy, the deductibles or self-insurance retainers of each policy, and a copy of an endorsement placed on each policy requiring thirty days notice by mail to the Building Official before the insurer may cancel the policy for any reason, and upon request of the Building Official or the City Attorney, a copy of any endorsements placed on such policies or the declarations page of such policies.

Expiration or cancellation of any insurance coverage required by this section shall constitute an automatic and immediate termination of the contractor's privilege to be issued permits under the provisions of this code, unless other insurance meeting the requirements of this section is provided and in full force and effect at the time of such expiration or cancellation. (Ord. 17440 §20; November 23, 1998).

25.03.210 Lapsed Registration Certificate.

Any person registered under the provisions of this code as a master HVAC contractor or a journeyman HVAC technician who does not renew his certificate of registration within a period of sixty days after the expiration of same shall pay the examination fee required by this code for a master HVAC

contractor or a journeyman HVAC technician, as the case may be, and shall submit himself to and pass the regularly scheduled examination given by the Board of Examiners before such person can be again registered hereunder.

No registered master HVAC contractor nor journeyman HVAC technician shall employ any person as an apprentice who is not registered as an apprentice HVAC technician within the City of Lincoln. No apprentice HVAC technician shall be permitted to work at the installation, alteration, repair, or removal of any heating, ventilating, and cooling equipment and their accessories except under the direct supervision and in the immediate presence of a duly registered master HVAC contractor or journeyman HVAC technician. (Ord. 17440 §21; November 23, 1998).

25.03.220 Suspension or Revocation of Certificate of Registration.

The Board of Examiners, upon the recommendation of the Building Official and after conducting a hearing as herein provided, shall have the power to suspend or revoke any registration of any master HVAC contractor or journeyman HVAC technician hereunder if the same was obtained by error or fraud, or if the holder thereof is shown to be no longer qualified, or if such holder fails to comply with the provisions of this code.

Where the Building Official has recommended suspension or revocation of a registered master HVAC contractor's or journeyman HVAC technician's certificate of registration, the Building Official shall cause written notice to be served upon the registered master HVAC contractor or journeyman HVAC technician whose registration has been recommended for suspension or revocation, setting forth the time and place for a public hearing thereon. Such written notice shall be served by certified mail or registered mail to the registrant's last known business address. At such hearing, the Board of Examiners shall hear all parties concerned and afford them the following rights, among others:

- (a) To call and examine witnesses on any matter relevant to the issues of the hearing;
- (b) To introduce documentary and physical evidence;
- (c) To cross-examine opposing witnesses on any matter relevant to the issues of the hearing; and
- (d) To rebut the evidence against him or her.

The Board of Examiners shall then within a reasonable time after the hearing render a written decision, setting forth its findings and conclusions. If a certificate is revoked, the holder of the same shall not apply for a new registration until one year after the date of such revocation. Decisions of the Board of Examiners are final unless appealed as provided by law. (Ord. 17440 §22; November 23, 1998).

25.03.230 Registered Master HVAC Contractor Not to Allow Another Person to Work On His or Her Permit.

No registered master HVAC contractor or journeyman HVAC technician shall allow his or her name to be used by another person, firm, partnership, or corporation, directly or indirectly, either to obtain a permit for the installation of any heating, ventilating, or cooling equipment or to install any such equipment.

No work for which a permit has been issued shall be performed on behalf of the master HVAC contractor, under whose registration the permit was issued, by any subcontractor unless such subcontractor is also registered under the provisions of this code.

Violations of this section shall be sufficient grounds for suspension or revocation of said certificate of registration as provided in this chapter. (Ord. 17440 §23; November 23, 1998).

25.03.240 Registered Master HVAC Contractor; Death.

In the case of death of the only registered master HVAC contractor of a firm, partnership, or corporation, an employee of such firm, partnership, or corporation may be issued a temporary registration permitting such firm, partnership, or corporation to complete the work for which a permit is issued, provided that said employee has first obtained and submitted the necessary certificate of insurance and is found by the Board of Examiners to be competent to hold such registration. Additionally, the Board may, upon request of the employee, hold a special meeting for the examination of such employee for a registration in accordance with Section 25.03.160.

In no event shall such temporary registration be valid for more than six months from the date of its issuance. (Ord. 17440 §24; November 23, 1998).

25.03.250 Installation, Alteration, Reconstruction, or Repair to be Performed by Master HVAC Contractor Only, Except as Otherwise Provided.

It shall be unlawful for any person, firm, or corporation as owner, agent, or tenant of a premises to knowingly permit any heating, ventilating, cooling, or refrigeration equipment to be installed, altered, reconstructed, or repaired, except as otherwise provided herein, by other than a registered master HVAC contractor or journeyman HVAC technician of the City of Lincoln.

All registered master HVAC contractors shall display the firm, corporation or company name and their registration number on the side doors or side panels of all vehicles while they are engaged in the installation, repair or replacement of heating, ventilating and cooling equipment. The name shall be readily visible with at least three-inch letters and the registration number with at least two-inch numbers. The registration number shall be included in all printed advertisements. (Ord. 17440 §25; November 23, 1998).

25.03.260 Installation by Owner.

Homeowners may install heating, ventilating, and cooling equipment only in a single family residence which they occupy as their own home. All equipment installed by homeowners shall be for themselves without compensation or pay from or to any other person for such labor or installation. Such installation by owners shall comply with the requirements of this code, and the owners in exercising this privilege shall not set themselves up as a master HVAC contractor. The owner shall be required to file plans, apply for, and secure a permit, pay fees, and call for all inspections in the manner provided in this code. (Ord. 17440 §26; November 23, 1998).

25.03.270 Section 303.1.1 Amended; Prohibited Installations.

Section 303.1.1 of the Uniform Mechanical Code is amended to read as follows:

303.1.1 Prohibited installations. No unvented or direct fired fuel-burning equipment shall be installed or used to provide comfort heating within any occupancy group other than group F, S or U.

Exception. Unvented or direct fired fuel burning equipment shall not be installed in garages or sheds that are attached to dwelling units. (Ord. 17440 §27; November 23, 1998).

25.03.280 Section 303.2; Conflicts; Deleted.

Section 303.2 of the Uniform Mechanical Code is hereby deleted. (Ord. 17440 §28; November 23, 1998).

25.03.290 Section 304.5 Amended; Prohibited Locations.

Section 304.5 of the Uniform Mechanical Code is amended to read as follows:

304.5 Prohibited Locations. Equipment shall not be located in a hazardous location unless listed and approved for the specific installation. Fuel-burning equipment, electric resistance heating devices or electrostatic air cleaners shall not be installed in a surgical procedure or medical treatment room. Fuel-burning -equipment shall not be installed in a closet, bathroom or a room readily usable as a bedroom, or in a room, compartment or alcove opening directly into any of these.

EXCEPTIONS: 1. Direct vent equipment and electric heat furnaces.

- 2. Access to furnaces located in an attic or underfloor crawl space may be through a closet.
- 3. A vented appliance located in an unconfined space in accordance with the combustion air requirements of Chapter 7.
- 4. A fireplace may be approved for installation in a bathroom or bedroom if equipped with an approved method of obtaining combustion air from outside.
- 5. A warm-air furnace in an enclosed space with combustion air obtained from outside the building in conformance with Chapter 7 and having a tightfitting gasketed door with a closer may have access through a bathroom or bedroom.
- 6. Fuel burning equipment may be approved for replacement in a bathroom with combustion air obtained in accordance with Chapter 7.

Equipment burning liquefied petroleum gas (LPG) or liquid fuel shall not be located in a pit, and underfloor space, below grade or similar location where vapors or fuel might unsafely collect unless an approved method for the safe collection, removal and containment or disposal of the vapors or fuel is provided. Appliances so fueled shall not be installed in any room or area unless installed with the use of a UL or AGA approved alarm in each area.

In areas subject to flooding, equipment which would be damaged or create hazardous conditions if subjected to inundation shall not be installed at or below grade unless suitably protected by elevation or other approved means. (Ord. 18240 §7; September 15, 2003: prior Ord. 17440 §29; November 23, 1998).

25.03.300 Section 306; Electrical Connections; Deleted.

Section 306 of the Uniform Mechanical Code is hereby deleted. (Ord. 17440 §30; November 23, 1998).

25.03.310 Section 309.5 Added; Overflows.

Section 309.5 is added to the Uniform Mechanical Code to read as follows:

309.5 Overflows. Where condensate or defrost liquids are generated in a attic or furred space and damage may result from overflow, provisions for disposal of overflow shall be provided. Overflow piping shall be of materials and slope as required by Section 309.3. The required overflow line shall be separate and uniquely identified for each piece of equipment served and shall be in piping separate from the required condensate drain. Sizing shall be as for the condensate drain itself required by this section. The point of discharge shall be at an approved location where it is readily observable. Electrically interconnected overflow prevention devices are acceptable. (Ord. 17440 §31; November 23, 1998).

25.03.320 Section 402.4 Amended; Make-up Air.

Section 402.4 of the Uniform Mechanical Code is amended to read as follows:

402.4 Make-up Air. Ventilation air supply shall be sufficient to provide make-up air for exhaust systems when required by this code or the Building Code. Make-up air systems shall be electrically interlocked with their associated exhaust systems.

A four-inch minimum round fresh air opening or an opening equivalent to half of the common flue cross sectional area shall be provided within six feet of the mechanical equipment or tied into the return air duct

402.4.1. Each room provided with an exhaust system shall have air supplied to the room equal to the amount of air to be exhausted. Makeup diffusers shall be located to prevent a short-circuiting of air furnished to the exhaust system. Windows and doors shall not be used for the purpose of providing makeup air. The exhaust and makeup air systems shall be connected by an electrical interlocking switch. Compensating hoods shall meet the airflow requirements specified in Sections 508.7 through 508.7.4. All compensating hoods shall extract at least forty percent of their required exhaust airflow from the kitchen area. (Ord. 18240 §8; September 15, 2003: prior Ord. 17440 §32; November 23, 1998).

25.03.330 Section 504.1 Amended; Environmental Air Ducts; Makeup and Exhaust Air Ducts.

Section 504.1 of the Uniform Mechanical Code is amended to read as follows:

504.1 Makeup and Exhaust Air Ducts. Environmental air ducts not regulated by other provisions of this code shall comply with this section. Ducts shall be substantially airtight and shall comply with the provisions of Chapter 6. Exhaust ducts shall terminate outside the building and shall be equipped with backdraft dampers. Environmental air ducts which have an alternate function as a part of an approved smoke-control system do not require design as Class I product-conveying ducts. Where environmental exhaust ducts pass through unconditioned spaces, they shall be insulated as per Table 6D.

Toilet rooms shall be provided with a fully openable exterior window at least three square feet $(.279 \, \text{m}^2)$ in area; or a vertical duct not less than $100 \, \text{square}$ inches $(64,520 \, \text{mm}^2)$ in area for the first toilet facility, with fifty additional square inches $(32,260 \, \text{mm}^2)$ for each additional facility; or a mechanically operated exhaust system capable of providing a complete change of air every fifteenminutes. Such systems shall be connected directly to the outside, and the point of discharge shall be at least three feet $(914.4 \, \text{mm})$ from any opening into the building.

Residential bathrooms, water closet compartments, laundry rooms and similar rooms shall be provided with natural ventilation by means of openable exterior openings with an area not less than one twentieth of the floor area of such rooms with a minimum of $1 \frac{1}{2}$ square feet (0.14 m^2) .

In lieu of required exterior openings for natural ventilation in bathrooms containing a bathtub or shower or combination thereof, laundry rooms, and similar rooms, a mechanical ventilation system connected directly to the outside capable of providing five air changes per hour shall be provided. Such systems shall be connected directly to the outside, and the point of discharge shall be at least three feet (914 mm) from any opening which allows air entry into occupied portions of the building. (Ord. 18240 §9; September 15, 2003: prior Ord. 17440 §33; November 23, 1998).

25.03.335 Section 504.2.1 Added; Residential Kitchen Exhaust.

Section 504.2 of the Uniform Mechanical Code is amended by adding a new Section 504.2.1 to read as follows:

504.2.1 Residential Kitchen Exhaust. Residential kitchen exhaust shall not be sized with air flow exceeding 300 cfm.

Exception. Residential kitchen exhaust may exceed 300 cfm provided makeup air is supplied into the structure. The makeup air shall be controlled by a motorized damper that is electrically interlocked to open with the operation of the kitchen exhaust fan. The makeup air shall be conditioned to within 10° F. of the of the space design temperature during the winter heating mode. The makeup air may be conditioned in the winter heating mode by circulation with a forced air furnace system or by other means approved by the Building Official. (Ord. 18240 §10; September 15, 2003).

25.03.340 Section 504.3.1 Amended; Environmental Air Ducts; Domestic Dryer Vent; Moisture Exhaust Ducts.

Section 504.3.1 of the Uniform Mechanical Code is amended to read as follows:

504.3.1 Moisture exhaust ducts. Moisture exhaust ducts for domestic clothes dryers shall terminate on the outside of the building and shall be equipped with a back-draft damper. Screens shall not be installed at the duct termination. Ducts for exhausting clothes dryers shall not be connected or installed with sheet metal screws or other fasteners which will obstruct the flow. Clothes-dryer moisture-exhaust ducts shall not be connected to a gas vent connector, gas vent or chimney. Clothes-dryer moisture exhaust ducts may extend into or through ducts or plenums provided connections are sealed airtight. Vertical laundry dryer exhaust duct inlets in excess of ten feet shall be a minimum of six inches above the dryer cabinet for duct cleaning access. (Ord. 18240 §11; September 15, 2003: prior Ord. 17440 §34; November 23, 1998).

25.03.350 Section 504.3.2 Amended; Environmental Air Ducts; Limitations.

Section 504.3.2 of the Uniform Mechanical Code is amended to read as follows:

504.3.2 Length Limitation. Unless otherwise permitted or required by the dryer manufacturer's installation instructions and approved by the Building Official, domestic dryer moisture exhaust ducts shall not exceed a total combined horizontal and vertical length of twenty-five feet including two ninety degree elbows. Eight feet shall be deducted for each ninety degree elbow in excess of two.

All weather hoods or wall caps shall have a free area opening of at least sixteen square inches. Weather hoods or wall caps that have a free area opening of less than sixteen square inches shall have the length limitation listed above reduced by fifty percent. (Ord. 17440 §35; November 23, 1998).

25.03.360 Section 505.8 Deleted; Small Hobby Kiln Exhaust Systems.

Section 505.8, including subsections 505.8.1 Hoods, and 505.8.2 Gravity ventilation ducts, of the Uniform Mechanical Code is hereby deleted. (Ord. 17440 §36; November 23, 1998).

25.03.365 Section 507.5 Amended; Cleanouts and Other Openings.

Section 507.5 of the Uniform Mechanical Code is amended to read as follows:

507.5 Cleanouts and Other Openings. Grease duct systems shall not have openings therein other than those required for proper operation and maintenance of the system. Any portion of such system

having sections inaccessible from the duct entry or discharge shall be provided with adequate cleanout openings. Cleanout openings shall be equipped with tightfitting doors constructed of steel having a thickness not less than that required for the duct. Doors shall be equipped with a substantial method of latching, sufficient to hold the door tightly closed. Doors shall be so designed that they can be opened without the use of a tool. Any portion of horizontal grease duct systems having sections inaccessible from duct entry or discharge shall be provided with adequate cleanout openings at every change of direction and at 12-foot intervals. (Ord. 18240 §12; September 15, 2003).

25.03.367 Section 507.8 Amended; Air Velocity.

Section 507.8 of the Uniform Mechanical Code is amended to read as follows:

507.8 Air Velocity. Grease duct systems serving a Type I hood shall be designed and installed in a manner to provide an air velocity within the duct system of not less than 1,500 feet per minute (7.5 m/s) and not to exceed 2,500 feet per minute (12.7 m/s). Ducts for Type II hoods that collect and remove steam, vapor, heat, and odors shall have a minimum velocity of 1,000 feet per minute and a maximum velocity of 1,500 feet per minute. (Ord. 18240 §13; September 15, 2003).

25.03.370 Section 508.1 Amended; Commercial Kitchen Hoods; Where Hoods Are Required.

Section 508.1 of the Uniform Mechanical Code is amended to read as follows:

Section 508.1 Where Hoods Are Required. Hoods shall be installed at or above all commercial-type deep fat fryers, broilers, fry grills, steam-jacketed kettles, hot-top ranges, ovens, barbecues, rotisseries, dish washing machines and similar equipment which produce comparable amounts of steam, smoke, grease or heat in a food-processing establishment. For the purpose of this section a food-processing establishment shall include any building or portion thereof used for the processing of food but shall not include a dwelling unit.

EXCEPTION: Type II Hoods

Dishwashers with low temperature water (140 degree nominal) with chemical rinse and under counter dishwashers shall not require a hood. (Ord. 17440 §37; November 23, 1998).

25.03.380 Section **508.2.1** Amended; Type I Hoods.

Section 508.2.1 of the Uniform Mechanical Code is amended to read as follows:

508.2.1 Type I Hoods. Type I Hoods constructed of galvanized steel shall be not less than No. 18 galvanized steel gauge. (Ord. 17440 §38; November 23, 1998).

25.03.390 Table No. 5-E Added; Kitchen and Bath Exhaust Fans; Duct Limitations.

Table No. 5-E is added to the Uniform Mechanical Code to read as follows:

Table No. 5-E is to be based on .10" of static pressure of discharge from exhaust fan.

TABLE 5-E				
	KITCHEN AND BATH EXHA			
CFM	Size of Round Pipe	Elbows	Maximum Feet	
50	3"	0	10	
50	3"	1	3	
50	4"	0	60	
50	4"	1	52	
50	4"	2	44	
50	4"	3	36	
50	4"	4	28	
70	4"	0	23	
70	4"	1	15	
70	4"	2	7	
70	5"	0	64	
70	5"	1	56	
70	5"	2	48	
70	5"	3	40	
70	5"	4	32	
120	5"	0	23	
120	5"	1	15	
120	5"	2	7	
120	6"	0	64	
120	6"	1	56	
120	6"	2	48	
120	6"	3	40	
120	6"	4	32	
	Or sized according to manufacturer's s	specifications.		

(Ord. 17440 §39; November 23, 1998).

25.03.400 Section 601.1 Amended; Ducts Systems; Scope; Material.

Section 601.1 of the Uniform Mechanical Code is amended to read as follows:

The free area discharge of the weather hood or wall cap shall be equivalent to the pipe size.

601.1 Material. Returnair and supply air for heating, cooling, absorption or evaporative cooling systems shall be conducted through duct systems constructed of metal as set forth in Table Nos. 6A, 6B, 6C or factory-made air ducts complying with Uniform Mechanical Code Standard No. 6-2. Ducts, plenums, and fittings may be constructed of concrete, clay, ceramics, fiberglass, steel with plastic coating,

or metal with exterior coating of polyvinyl chloride (P.V.C.) when installed in the ground, or in a concrete slab, provided all joints are tightly sealed.

601.1.1 Use of corridor as plenum. Corridors shall not be used to convey air to or from rooms if the corridor is required to be of fire resistive construction by Section 1005 of the Uniform Building Code.

Environmental ducts may extend into or through ducts or plenums provided the requirements of section 601.3 are met. All joints shall be sealed with duct tape or other approved materials.

- **601.1.2** Use of concealed space as plenum. Concealed building spaces or independent construction within buildings may be used as ducts or plenums. Vents or vent connectors shall not extend into or through ducts or plenums.
- **601.1.3 Materials exposed within ducts.** Materials exposed within ducts or plenums shall have a flame-spread rating of not more than twenty-five and a smoke-development rating of not more than fifty.

EXCEPTION: Return-air ducts, plenums, or concealed spaces which serve a dwelling unit may be of combustible construction.

Wiring in plenums shall comply with the electrical code.

Where gypsum products are exposed in ducts or plenums, the air temperatures shall be restricted to range from 50° F. to 125° F.; and moisture content shall be controlled so that the material is not adversely affected. Gypsum products shall not be exposed in ducts serving evaporative coolers or in rooms with tubs, showers, or similar type equipment. Bath and laundry room exhaust ducts shall not exceed the limitations set forth in Table No. 5-E of this code. (Ord. 18240 §14; September 15, 2003: prior Ord. 17440 §40; November 23, 1998).

25.03.410 Section 601.6 Amended; Joints, Seams and Fittings.

Section 601.6 of the Uniform Mechanical Code is amended to read as follows:

601.6 Joints and seams of ducts. Joints, seams, and fittings of duct systems shall be made substantially airtight. In addition, all ducts in attics and crawl spaces and supply and return air connections to the equipment cabinet shall be sealed by means of tape, mastics, gasketing, or other means approved by the Building Official. (Ord. 18240 §15; September 15, 2003: prior Ord. 17440 §41; November 23, 1998).

25.03.420 Section 603.1.4 Added; Plenum and Duct Clearance.

Section 603.1.4 is added to the Uniform Mechanical Code to read as follows:

603.1.4 Plenum and Duct Clearance. The supply plenum shall have at least one inch (25 mm) clearance from combustible materials or the minimum clearance according to the manufacturer's requirements.

A supply plenum shall be defined as that portion of supply duct extending in a straight line from the discharge of the heat exchanger for a maximum distance of four feet. (Ord. 17440 §42; November 23, 1998).

25.03.430 Section 701 Amended; Combustion Air; General; Air Supply.

Section 701 of the Uniform Mechanical Code is amended to read as follows:

701.2 Unusually Tight Construction. In buildings of unusually tight construction, combustion air shall be obtained from outside. With prior approval of the Building Official, in all other buildings, all or a

portion of the combustion air for fuel-burning appliances may be obtained from infiltration when the requirement for fifty cubic feet (1.5 m³) per 1000 Btu/hr (4.831 L/W) input is met.

All new construction shall be considered to be of unusually tight construction and shall comply with Section 707.1 of the Uniform Mechanical Code.

Combustion air may be taken from the outside and brought into the return air system or into the mechanical space and within six feet of the appliances served, provided the free area is not less than 12.566 square inches (8107.58 mm²) (4 inch round) or fifty percent of the flue size in square inches (mm²), whichever is greater, or in accordance with the manufacturer's instructions. In addition, the other requirements of Chapter 7 of the Uniform Mechanical Code shall be met.

Combustion/ventilation air ducts directly from the outdoors, including attic, shall be insulated with at least a one-half inch liner or a one-inch wrap material.

Combustion/ventilation air shall not be taken from the ventilated attic when exhaust fan air terminates in the attic space.

- **701.4 Existing Buildings.** When fuel-burning appliances are installed in an existing building containing other fuel-burning appliances, the room or space shall be provided with combustion air as required by this chapter for all fuel-burning appliances contained therein. Additional floor area can be used for combustion air requirements of a replacement furnace when all of the following conditions are met:
 - (1) The structure is a single family dwelling.
- (2) The communicating high-low combustion grills between the mechanical space and adjoining areas must constitute at least fifty percent of the required cubic feet for combustion air for the total BTU's in the space.
 - (3) A blower-type furnace is being installed.
- (4) A grill equivalent to one square inch (25 mm²) free air per 4000 BTU (19.324 L/W) input rating of all appliances shall be installed on the supply duct or plenum.
- (5) The grill shall not have shutters and shall be labeled with at least one-half inch letters of metal, plastic, or other approved materials and read: "Combustion Air Grill Do Not Cover. If covered, may cause illness or death."
- (6) The combustion grill cannot be on the plenum or supply duct, within the furnace room, if the furnace room area is less than twenty-five percent of the required cubic feet. (Ord. 18240 §16; September 15, 2003: prior Ord. 17440 §43; November 23, 1998).

25.03.440 Section 702.2 Amended; Combustion-Air Openings; Dampers Prohibited.

(Repealed by Ord. 18240 §17; September 15, 2003: prior Ord. 17440 §44; November 23, 1998).

25.03.450 Section 704.2; Combustion Air Ducts; Dampers.

Section 704.2 of the Uniform Mechanical Code is amended to read as follows:

704.2 Combustion Air Dampers. Combustion air ducts shall not be installed so as to pass through construction where fire dampers are required. Fire or volume dampers shall not be installed in combustion air ducts unless safety means such as interlocks with the gas valve are provided, and the proposed installation is approved by the Building Official prior to the installation. (Ord. 17440 §45; November 23, 1998).

25.03.460 Section 809 Amended; Multiple Appliance Venting Systems.

Section 809 of the Uniform Mechanical Code is amended to read as follows:

Section 809. Two or more oil-or gas-burning appliances may be connected to one common venting system, or automatically controlled gas appliances may be vented into the same chimney serving liquid-fuel-fired appliances; provided:

- (1) The gas appliances are each equipped with a safety shutoff device;
- (2) Each oil appliance is equipped with a primary safety control;
- (3) The venting system is designed to meet the requirements of Section 808 of this code, or the venting system complies with the following requirements:
- (a) Appliances which are connected to a common venting system shall be located within the same story of the building except designed vent system as provided by Section 801;
- (b) Two or more connectors shall not enter a common venting system unless the inlets are offset in such a manner that no portion of any inlet is opposite the other inlets;
- (c) Each vent connector of a multiple venting system shall have the greatest possible rise consistent with the headroom available between the draft hood outlet, the barometric damper or the flue collar and the point of interconnection to a manifold, to a common vent, or to a chimney. (Ord. 17440 §46; November 23, 1998).

25.03.470 Section 816.8 Amended; Two or More Appliances Connected to a Single Vent.

Section 816.8 of the Uniform Mechanical Code is amended to read as follows:

816.8 Two or More Appliances Connected to a Single Vent. Two or more vent connectors shall not be joined unless the common connector, the manifold and the vent are sized properly to serve the appliances connected thereto and adequate draft is available to remove all products of combustion to the outdoors.

Each vent connector of a multiple venting system shall have the greatest possible rise consistent with the headroom available between the draft hood outlet or the flue collar and the point of inter-connection to a manifold or to a common vent.

Water heater vents may be joined to the furnace connector vent provided such attachment is by a tap-in collar, which is the same size as the draft diverter on the water heater, but in no case less than four inches (101.6 mm) in diameter and not less than three inches (76.2 mm) in length. (Ord. 17440 §47; November 23, 1998).

25.03.480 Section 908; Clothes Dryers; Not Applicable.

The provisions of Section 908 shall not apply to existing single- and two-family dwellings. Section 908 shall apply to all new construction. (Ord. 17440 §48; November 23, 1998).

25.03.490 Section 910; Small Ceramic Kilns; Deleted.

Section 910 of the Uniform Mechanical Code is hereby deleted. (Ord. 17440 §49; November 23, 1998).

25.03.500 Chapter 17 Added; Decorative Gas Fireplace; Gas Log Installations and Contractors.

Chapter 17 is added to the Uniform Mechanical Code to read as follows:

Chapter 17

DECORATIVE FIREPLACE/GAS LOG INSTALLATIONS AND CONTRACTORS (Ord. 17440 §50; November 23, 1998).

25.03.510 Section 1701 Added; General Provisions.

Section 1701 is added to the Uniform Mechanical Code to read as follows:

Section 1701 -- General Provisions. The provisions of this chapter shall control the design and installation, alteration, removal, or repair of decorative fireplace equipment, the registration of decorative fireplace/gas log contractors, and the issuance of permits and collection of fees therefor. (Ord. 17440 §51; November 23, 1998).

25.03.520 Section 1701.1 Added; Definitions.

Section 1701.1 is added to the Uniform Mechanical Code to read as follows:

1701.1 Definitions. For the purpose of this chapter, the following definitions shall apply:

- (a) **Decorative Appliances**, Vented, are appliances whose only function lies in the aesthetic effect of the flames.
- (b) **Decorative Appliances for Installation in Solid-fuel-burning Fireplaces** are self-contained, freestanding, fuel-gas-burning appliances designed for installation only in a vented solid-fuel-burning fireplace and whose primary function lies in the aesthetic effect of the flame. (Ord. 17440 §52; November 23, 1998).

25.03.530 Section 1702 Added; Permits and Fees.

Section 1702 is added to the Uniform Mechanical Code to read as follows:

1702. Permits and Fees. It shall be unlawful for any person to install, alter, remove, or repair any decorative fireplace/gas log appliance, or cause the same to be done, without first obtaining a permit therefor from the Building Official.

A permit to install a decorative fireplace/gas log appliance may be issued only to a duly registered decorative fireplace/gas log contractor or registered master HVAC contractor or homeowner complying with Section 25.03.240. It shall be unlawful for any person, firm, or corporation to cause or permit any decorative fireplace/gas log system installation to be done on any property owned, managed, or controlled by such person, firm, or corporation unless such work is done by said duly registered decorative fireplace/gas log contractor or registered master HVAC contractor.

Application for a permit may be made in writing to the Building Official on a form furnished by the Building Official for that purpose.

A fee shall be paid to the Building Official as follows:

For each decorative fireplace/gas log installation
Reinspection fee (wrong address, work
that does not pass inspection, work
not complete, inaccessibility)

Gas shall not be turned on to any decorative fireplace/gas log appliance until it has been inspected and approved by the Building Official. (Ord. 17440 §53; November 23, 1998).

25.03.540 Section 1703 Added; Installation and Inspection.

Section 1703 is added to the Uniform Mechanical Code to read as follows:

1703. Installation and Inspection. The gas to any decorative fireplace/gas log appliance shall be of materials and methods of installation approved for gas distribution in this code. The venting of decorative fireplace/gas log appliance systems shall be of any material approved by the Building Official.

All decorative fireplace and gas log installations shall be inspected by the Building Official to ensure compliance with all the requirements of this code. It shall be the duty of the person doing the work authorized by the permit to notify the Building Official orally or in writing that said work is ready for inspection, and for said person doing the work to provide access and means for proper inspection. It shall be the duty of the person doing the work to call for inspection of the decorative fireplace or gas log installation not later than three days after the completion of the installation. (Ord. 17440 §54; November 23, 1998).

25.03.550 Section 1704 Added; Decorative Fireplace/Gas Log Board of Examiners.

Section 1704 is added to the Uniform Mechanical Code to read as follows:

1704. Board of Examiners. The Board of Examiners shall have authority to adopt such rules and regulations as are consistent with the provisions of this chapter, subject to approval of the Mayor, for the examination of applicants for registration under the terms of this chapter. All decisions of the Board of Examiners shall be subject to review by the Mayor upon written request by an aggrieved party to the Mayor. The Board of Examiners shall determine the character of the examination to be given applicants for registration and shall elect annually a chairman who shall preside at all meetings. (Ord. 17440 §55; November 23, 1998).

25.03.560 Section 1705 Added; Registration of Decorative Fireplace/Gas Log Contractors and Installers.

Section 1705 is added to the Uniform Mechanical Code to read as follows:

1705. Registration of Decorative Fireplace/Gas Log Contractors and Installers.

- (a) All persons, other than a master HVAC contractor, installing decorative fireplace and gas log appliances shall be registered as decorative fireplace/gas log contractors or shall be registered as decorative fireplace gas log installers. All decorative fireplace gas log installers must be employed by a registered decorative fireplace/gas log contractor.
- (b) Application for registration as a decorative fireplace/gas log contractor or decorative fireplace/gas log installer shall be made to the Building Official on a form furnished by him for such purpose. Such form shall require the name and address of the applicant, the business location of the applicant, a statement of the practical experience of the applicant, and such other relevant information as may be required by the Building Official.
- (c) Any corporation may be registered as a decorative fireplace/gas log contractor in the name of such corporation; provided, such corporation shall have a registered decorative fireplace/gas log contractor as a bona fide officer or employee of such corporation and who shall at all times be in actual charge of decorative fireplace or gas log work done by such corporation. The registration certificate shall also be issued in the name of the person registered as a decorative fireplace/gas log contractor. In the event such decorative fireplace/gas log contractor shall sever his relationship with such corporation as a bona fide officer or employee, he must immediately notify the Building Official who shall forthwith recommend to the

Board of Examiners that the certificate of registration of such corporation be revoked. It shall be unlawful for any corporation to act, engage in, advertise, or to otherwise represent itself as a decorative fireplace/gas log contractor in the City of Lincoln unless a bona fide officer or employee of such corporation is duly registered as a decorative fireplace/gas log contractor as provided in this chapter.

- (d) Any firm or partnership may be registered as a decorative fireplace/gas log contractor in the name of such firm or partnership, provided such firm or partnership shall have a registered decorative fireplace/gas log contractor as a bona fide employee or partner of such firm or partnership and who shall at all times be in actual charge of the decorative fireplace/gas log work done by such firm or partnership. The registration certificate shall also be issued in the name of the person registered as the decorative fireplace/gas log contractor. In the event such decorative fireplace/gas log contractor shall sever his relationship with such firm or partnership as a bona fide employee or partner, he must immediately notify the Building Official and the Board of Examiners who shall forthwith recommend to the Mayor that the certificate of registration of such firm or partnership be revoked. It shall be unlawful for any firm or partnership to act, engage in, advertise or otherwise represent themselves as a decorative fireplace/gas log contractor in the City of Lincoln, unless a bona fide member or employee of such firm or partnership is duly registered as a decorative fireplace/gas log contractor as provided in this chapter.
- (e) Application for registration as a decorative fireplace/gas log installer may be made to the Building Official. Before a registration certificate shall be issued, the applicant shall be required to submit to and pass a written examination to determine his qualifications and fitness for executing the class of work covered by the registration. Such examination shall be given under the direction of the Board of Examiners. Any applicant who fails to pass the required examination shall not be eligible to take another examination until at least six months shall have elapsed from the date of last examination. (Ord. 17440 §56; November 23, 1998).

25.03.570 Section 1706 Added; Examination and Registration Fees.

Section 1706 is added to the Uniform Mechanical Code to read as follows:

1706. Examination and Registration Fees. Each applicant for a new registration shall pay to the Building Official an examination fee of fifty dollars.

Upon initialissuance or subsequent renewal of a registration certificate, annual registration fees shall be paid as follows:

Decorative fireplace/gas log contractor registration fee. . . . \$50.00

Decorative fireplace/gas log installer registration fee \$25.00

All registrations provided by this section shall expire on the last day of December following the date of issuance thereof, and shall not be assignable.

Any person registered under the provisions of this code as a decorative fireplace/gas log contractor or a decorative fireplace/gas log installer who does not renew his certificate of registration within a period of sixty days after the expiration of same shall pay the examination fee required by this code and shall submit himself to and pass the regularly scheduled written examination given by the Board of Examiners before such person can be again registered hereunder. (Ord. 18240 §18; September 15, 2003: prior Ord. 17440 §57; November 23, 1998).

25.03.580 Section 1707 Added; Certificate of Insurance.

Section 1707 is added to the Uniform Mechanical Code to read as follows:

- **1707. Certificate of Insurance.** Before any decorative fireplace/gas log contractor may be issued a permit or registered under the provisions of this chapter, such contractor shall have a regularly established place of business, and shall be required to:
- (a) At all times maintain public liability insurance coverage for all claims arising out of all work in the City of Lincoln and within three miles of the corporate limits thereof done by or under the supervision of the decorative fireplace/gas log contractor under the provisions of this code. Such insurance shall be in the form of a commercial or comprehensive general liability policy, or an acceptable substitute policy form as permitted by the City Attorney, with a minimum combined single limit of \$500,000.00 aggregate for any one occurrence on any job for which a permit is required under this code, provided the City of Lincoln shall be named an additional insured thereunder. The coverages required herein shall be subject to review and approval by the City Attorney for conformance with the provisions of this section.
- (b) At all times keep on file with the Building Official a current certificate of insurance signed by a qualified agent of an insurance company licensed to do business in the State of Nebraska and approved by the City Attorney for conformance with the provisions of this section evidencing the existence of valid and effective policies of insurance naming the city as an additional insured for the coverage required by subsection (a) of this section, the limits of each policy, the policy number, the name of the insurer, the effective date and expiration date of each policy, the deductibles or self-insurance retainers of each policy, and a copy of an endorsement placed on each policy requiring thirty days notice by mail to the Building Official before the insurer may cancel the policy for any reason, and upon request of the Building Official or the City Attorney, a copy of any endorsements placed on such policies or the declarations page of such policies. Any termination, reduction, or lapse of such insurance shall automatically terminate the privilege of the decorative fireplace/gas log contractor to be issued permits under the provisions of this code, unless other insurance meeting the requirements of this section is provided and in full force and effect at the time of such termination or cancellation. (Ord. 17440 §58; November 23, 1998).

25.03.590 Section 1708 Added; Suspension or Revocation of Registration.

Section 1708 is added to the Uniform Mechanical Code to read as follows:

1708. Suspension or Revocation of Registration. The Board of Examiners, upon the recommendation of the Building Official and after conducting a hearing as herein provided, shall have the power to suspend or revoke any registration of a decorative fireplace/gas log contractor hereunder if the same was obtained by error or fraud, or if the holder thereof is shown to be no longer qualified, or if such holder fails to comply with the provisions of this code.

Where the Building Official has recommended suspension or revocation of a registered decorative fireplace/gas log contractor's certificate of registration, the Building Official shall cause written notice to be served upon the registered decorative fireplace/gas log contractor whose registration has been recommended for suspension or revocation, setting forth the time and place for a public hearing thereon. Such written notice shall be served by certified mail or registered mail to the registrant's last known business address. At such hearing, the Board of Examiners shall hear all parties concerned and afford them the following rights, among others:

- (a) To call and examine witnesses on any matter relevant to the issues of the hearing;
- (b) To introduce documentary and physical evidence;

- (c) To cross-examine opposing witnesses on any matter relevant to the issues of the hearing; and
- (d) To rebut the evidence against him or her.

The Board of Examiners shall then within a reasonable time after the hearing render a written decision, setting forth its findings and conclusions. If a certificate is revoked, the holder of the same shall not apply for a new registration until one year after the date of such revocation. Decisions of the Board of Examiners are final unless appealed as provided by law. (Ord. 17440 §59; November 23, 1998).

25.03.600 Chapters 10, 11, 12, 13, 14, 15, and 16, Appendix A, Appendix B, Appendix C, and Appendix D Adopted as Reference Guide Only.

Chapters 10 (Boilers/Water Heaters), 11 (Refrigeration), 12 (Hydronics), 13 (Fuel-Gas Piping), 14 (Special Piping and Storage Systems), 15 (Solar Systems), 16 (Standards), Appendix A, Appendix B, Appendix C, and Appendix D of the Uniform Mechanical Code are adopted as a Reference Guide only. (Ord. 17440 §60; November 23, 1998).